



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,116	02/28/2002	Eric T. Bovell	3336.1003-000	3609
21005	7590	06/17/2004	EXAMINER	
HAMILTON, BROOK, SMITH & REYNOLDS, P.C.			BUI, HUNG S	
530 VIRGINIA ROAD			ART UNIT	
P.O. BOX 9133			PAPER NUMBER	
CONCORD, MA 01742-9133			2841	

DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/090,116

Applicant(s)

BOVELL, ERIC T.

Examiner

Hung S Bui

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 March 2004.  
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2,3 and 6-15 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 2,3 and 6-15 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 3, line 1, there is no antecedent basis for "the fastener." It is assumed that applicant intended claim 3 to depend upon claim 2.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-3, 6-8, 10-12 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tirrell et al. [US 5,828,546] in view of Beaman et al. [US 5,980,275].

Regarding claim 10, Tirrell et al. disclose a contact module (figure 1) comprising:

- a panel (10a) having a front, top, a bottom side, the panel being rotatably connected to the sled module; and
- at least one hook (10d) near the bottom of the panel engaging a catch (57) of a tray (50) when the panel is rotated into a closed position.

Tirrell et al. disclose the instant claimed invention except for the panel including a plurality of grounding tabs for electrically connecting the panel to adjacent panel to provide a flat continuous front panel surface.

Beaman et al. disclose a removable circuit board interface (figure 2) having a front panel (10) including a plurality of grounding tabs (34) for electrically engaging an adjacent interface to provide a flat continuous front panel surface.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the grounding tab design of Beaman et al. with the module of Tirrell et al., for the purpose of grounding the panel with an adjacent panel.

Regarding claim 2, Tirrell et al. disclose a fastener (16) releasably locking the panel to the circuit module.

Regarding claim 3, Tirrell et al. disclose the instant claimed invention except for the fastener being a screw.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a screw for the fastener in order to secure the panel to the circuit module.

Regarding claim 6, Tirrell et al. disclose the panel serving as a lever for extracting the circuit sled module from the tray when the panel is in opening position.

Regarding claim 7, Tirrell et al. disclose at least one side wall having at least one hook (10c) extending from a portion thereof near the bottom of the panel (figure 1a).

Regarding claim 8, Tirrell et al. disclose the circuit module comprising a hard disk drive.

Art Unit: 2841

Regarding claims 11-12, Tirrell et al. disclose the front panel engaging an outer surface of the catch when the panel is rotated away from the circuit module.

Regarding claims 14-15, the claimed method steps would have been necessitated by the product structure.

5. Claims 9 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tirrell et al. in view of Beaman et al. as applied to claim 10 above, and further in view of Kim et al. [6,288,902].

Regarding claim 9, Tirrell et al. in view of Beaman et al. disclose the instant claimed invention except for the panel including vents.

Kim et al. disclose a module data storage having a front panel (220) including a plurality of air vents (218).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include vents in the panel of Tirrell et al., as modified, as suggested by Kim et al., for the purpose of enhancing cooling.

Regarding claim 13, Tirrell et al. in view of Beaman et al., disclose the instant claimed invention except for hole in the sidewall for receiving an axle connected to the circuit module and the panel rotating about an axis formed by the axle.

Kim et al. disclose the panel being mounted via an axle (237) through holes (228) mounted on the panel.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the axle design of Kim et al. with the panel of Tirrell et al., as modified, for the purpose of providing rotational motion to the panel.

***Response to Arguments***

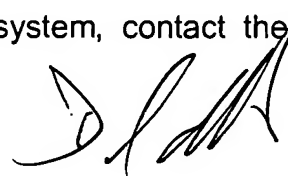
6. Applicant's arguments with respect to claims 2-3, 6-15 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung S Bui whose telephone number is (571) 272-2102. The examiner can normally be reached on Monday-Friday 8:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David S Martin can be reached on (571) 272-2107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DAVID MARTIN  
SUPERVISORY PATENT  
TECHNOLOGY CENTER

6/8/04  
HB